

**Fig.1.**

The diagram illustrates a power supply system. At the top, a power source (5) is connected to a transformer (11). The transformer's secondary is connected to two resistors (12). The output of the first resistor (12) is connected to a multi-channel device (1) at input 3. The output of the second resistor (12) is connected to the same device at input 4. The multi-channel device (1) consists of five identical channels. Each channel includes an inductor (2) in series with a load (Lo). A capacitor (C') is connected in parallel with the inductor (2). The other end of the capacitor (C') is connected to a common ground line (9). A capacitor (Co) is connected in parallel with the load (Lo) in each channel. A switch (8) is connected between the common ground line (9) and the capacitor (Co) in each channel. The output of the multi-channel device (1) is connected to a common output line (4).